

DRAFT Hidden Hollow Conservation Area

Ten-Year Area Management Plan FY 2016-2025



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OVERVIEW

- **Official Area Name:** Hidden Hollow Conservation Area, # 8510
- **Year of Initial Acquisition:** 1985
- **Acreage:** 1,360 acres
- **County:** Macon
- **Division with Administrative Responsibility:** Forestry
- **Division with Maintenance Responsibility:** Forestry
- **Statements of Purpose:**
 - A. Strategic Direction**

Manage Hidden Hollow Conservation Area (CA) to encourage healthy forest and woodland habitats; produce/maintain healthy populations of deer, turkey and small game; and provide compatible recreational opportunities.
 - B. Desired Future Condition**

The desired future condition of Hidden Hollow CA is a healthy forest and woodland community with interspersed open fields comprised of agriculture, enhanced prairie, and old fields.
 - C. Federal Aid Statement**

N/A

GENERAL INFORMATION AND CONDITIONS

- I. Special Considerations**
 - A. Priority Areas:** None
 - B. Natural Areas:** None
- II. Important Natural Features and Resources**
 - A. Species of Conservation Concern:** None observed.
 - B. Caves:** None
 - C. Springs:** None
 - D. Other:** Hidden Hollow CA has two rare natural communities: a 56-acre Mesic Bottomland Forest and a 34-acre Dry-Mesic Loess/Glacial Till Prairie. The Mesic Bottomland Forest, which is the only one in the Northeast Region, runs along an intermittent stream and has a canopy of American sycamore, elm, hickory, silver maple and ash. This riparian area also has a diverse variety of forbs, ferns, shrubs and vines. The Dry-Mesic Loess/Glacial Till Prairie complex, one of only three on public lands in the Northeast Region, is dominated by perennial grasses and forbs with few trees.

III. Existing Infrastructure

- 3 parking lots
- Multiple unimproved service roads (open to the public as foot traffic only)
- 4 stream crossings
- 4 fishless ponds (0.5 acres)

IV. Area Restrictions or Limitations

- A. Deed Restrictions or Ownership Considerations:** None
- B. Federal Interest:** Federal funds may be used in the management of this land. Fish and wildlife agencies may not allow recreational activities and related facilities that would interfere with the purpose for which the State is managing the land. Other uses may be acceptable and must be assessed in each specific situation.
- C. Easements:** None
- D. Cultural Resources Findings:** No known cultural resources.
- E. Hazards and Hazardous Materials:** None observed.
- F. Endangered Species:** None observed.
- G. Boundary Issues:** None

MANAGEMENT CONSIDERATIONS

V. Terrestrial Resource Management Considerations

The area's cover type is heavily dominated by mixed hardwoods, but also contains other habitats such as prairie, riparian corridors, old fields and bottomland crop fields. This intermingling of habitat types has resulted in sustainable populations of white-tailed deer and wild turkey. The area receives the most public use during the prescribed hunting seasons for these two species.

Challenges and Opportunities:

- 1) In the limited open land acres, invasive species are a management challenge. A multi-faceted approach to controlling these species will be taken.
- 2) Agricultural fields will be contract planted and placed in a traditional crop/idle rotation. A portion of the crop planted by a permittee farmer will be left in the field for wildlife. Opportunities exist for reducing the amount of cropped acres to make those acres more beneficial for wildlife.
- 3) Incorporation of a prescribed fire regime as one of the management tools used will be a priority on the designated woodland and prairie sites on the area, primarily to maximize floral diversity and benefit all wildlife species dependent on such habitats.

Management Objective 1: Reduce sericea lespedeza, fescue, reed canary grass, autumn olive, and other invasive plants on the area.

Strategy 1: Reduce sericea lespedeza, reed canary grass, and fescue through an aggressive combination of management techniques including but not limited to prescribed fire, herbicide applications and mechanical methods. (Forestry)

Strategy 2: Reduce autumn olive on the area using a combination of management techniques including but not limited to mechanical treatments and/or herbicide. (Forestry)

Strategy 3: Incorporate autumn olive control in all forest and woodland thinning. (Forestry)

Strategy 4: Pursue options to enhance invasive species control efforts including but not limited to outside funding and district workdays. (Forestry)

Management Objective 2: Manage the limited open fields in a manner that provides early successional habitat.

Strategy 1: Remove undesirable woody vegetation from open fields and create downed woody cover. (Forestry)

Strategy 2: Manage native grasses and forbs to create habitat on open land using a combination of management techniques including but not limited to prescribed burning. (Forestry)

Management Objective 3: Provide cereal grain and green browse food plots to enhance small game hunting. Maintain some permittee crop activity and presence on the area.

Strategy 1: Continue to work with a permittee farmer to provide benefit to wildlife species. (Wildlife)

Strategy 2: Reduce crop acres and increase early successional habitat by removing small fields from the permittee farmer contract by FY17. (Wildlife)

Management Objective 4: Manage prairie and woodland resources to promote floral diversity and benefit wildlife.

Strategy 1: Complete prescribed burn plans for prairie, open land and woodland habitats. (Forestry)

Strategy 2: Conduct periodic prescribed fires on prairie, open land and woodland units according to the prescribed burn plans. (Forestry)

Strategy 3: Enhance wooded edges by creating downed woody cover to benefit small game. (Forestry)

Management Objective 5: Manage the wooded acreage according to the current inventory in a manner that provides a healthy forest with multiple habitat types and age classes across the landscape.

Strategy 1: Implement timber sales and forest stand improvement activities as identified in the 2013 forest inventory and corresponding forest management plan by FY2019. (Forestry)

Strategy 2: Utilize Best Management Practices during timber harvest and woodland management as described in the Department's manuals: *Missouri Watershed Protection Practice manual* (Missouri Department of Conservation 2014) and the *Missouri Forest Management Guidelines Voluntary Recommendations for Well-Managed Forests* (Missouri Department of Conservation 2014) (Forestry)

VI. Aquatic Resource Management Considerations

Challenges and Opportunities:

- 1) There are approximately 5.7 miles of first- and second-order stream channels on Hidden Hollow CA. Additionally, Cottonwood Creek, a third-order tributary to the Chariton River, forms the western property boundary of the conservation area for approximately 1.3 miles. The current riparian corridors along all stream channels on the conservation area are wooded and wide enough to provide proper ecological function.
- 2) There are four ponds/wildlife watering holes on the conservation area. These are small, shallow, fishless ponds that do not support viable fisheries. They serve as wildlife watering sites and important habitat for amphibians and reptiles.

Management Objective 1: Maintain the high quality streams on the area. Improve long-term stream stability and ecological function.

Strategy 1: Maintain the existing wooded riparian corridor, through natural regeneration, on all lands bordering the first- and second-order streams on Hidden Hollow CA at a minimum of 50 feet wide. (Forestry, Fisheries)

Strategy 2: Maintain a minimum 100-foot wide wooded riparian corridor, through natural regeneration, on all lands bordering Cottonwood Creek on Hidden Hollow CA. (Forestry, Fisheries)

Strategy 3: Where feasible, move field access roads away from the 50-foot wide stream corridor on tributary streams. (Forestry, Design & Development)

Strategy 4: Follow the *Watershed and Stream Management Guidelines for Lands and Waters Managed by the Missouri Department of Conservation* (Missouri Department of Conservation, 2009) for all management activities on the area. (Forestry)

Strategy 5: Inspect riparian corridors along all agricultural fields every three years to determine the need for field adjustments. (Wildlife)

Management Objective 2: Provide suitable habitat for amphibians and reptiles in ponds with no fisheries management potential.

Strategy 1: Maintain fishless condition in all ponds that are not suitable for sustaining viable fisheries. (Forestry and Fisheries)

VII. Public Use Management Considerations

Challenges and Opportunities:

- 1) The area offers multiple public use opportunities for outdoor recreation and education, including hunting, camping, wildlife viewing, hiking and educational field trips. Currently, the area infrastructure consists of three parking lots, a limited mobility hunting area and multiple unimproved service roads that travel through the area. With the exception of the limited mobility hunting area, these unimproved service roads are open to foot traffic only. Moderate public use occurs during firearms deer seasons and the spring turkey season.

Management Objective 1: Provide quality outdoor recreational opportunities for area users by maintaining area facilities in order to provide user access.

Strategy 1: Maintain existing parking lots, bulletin boards, small game habitats, and service roads to facilitate use by area users.

Management Objective 2: Keep area users informed of wildlife and forest disease issues that relate specifically to the area. Minimize activities that increase the risk of spreading such diseases.

Strategy 1: Post informational materials on area bulletin boards.

Management Objective 3: Maintain infrastructure and regulations to access resources and recreational opportunities.

Strategy 1: Monitor and evaluate infrastructure and regulations annually.
(Forestry)

Strategy 2: Ensure that information regarding the area is accurate, consistent and available to the public through general contact, Atlas database, posted signs and brochures. (Forestry)

VIII. Administrative Considerations

Challenges and Opportunities:

- 1) There are low-water crossings on unimproved service roads that hold water, which can reduce access to the area during wet conditions.

Management Objective 1: Maintain all gravel low-water crossings on the area to provide dependable access.

Strategy 1: Inspect all gravel crossings and repair, as needed, to provide dependable access and maintain stream quality. (Forestry, Design and Development)

Management Objective 2: Maintain unimproved service roads at a level that allows reasonable access.

Strategy 1: Install and maintain water diversion structures on unimproved service roads where needed. (Forestry, Design and Development)

Strategy 2: Gravel low lying portions of the trail, which can inhibit dependable access by becoming soft during wet periods. (Forestry, Design and Development)

Lands Proposed for Acquisition:

When available, adjacent land may be considered for acquisition from willing sellers. Tracts that improve area access, provide public use opportunities, contain unique natural communities and/or species of conservation concern, or meet other Department priorities, as identified in the annual Department land acquisition priorities, may be considered.

MANAGEMENT TIMETABLE

Strategies are considered ongoing unless listed in the following table:

	FY16	FY17	FY18	FY19	FY20	FY21	FY22	FY23	FY24	FY25
Terrestrial Resource Management Considerations										
<i>Objective 3</i>										
Strategy 2		X								
<i>Objective 4</i>										
Strategy 1		X	X	X						
Aquatic Resource Management Considerations										
<i>Objective 1</i>										
Strategy 5	X			X			X			X
Administrative Considerations										
<i>Objective 2</i>										
Strategy 1		X								

APPENDICES

Area Background:

Over 80 percent of the area is wooded. Oak and hickory are dominant in wooded areas. The lowland areas along the northern portion of the area contain 121 acres of open fields, maintained through a permittee farmer. Visitors can also see native prairie, old fields and woodland restoration. Forest management practices are implemented on the area in order to create forest openings for wildlife and promote a healthy, diverse forest. These practices include thinning, using both commercial harvest and non-commercial methods. White-tailed deer and wild turkey are abundant on the area, as are numerous songbirds and a variety of woodland animals. Approximately 1 mile of Cottonwood Creek runs along the western edge of the area. An unnamed intermittent stream runs through the middle of the area, creating the area's namesake "hidden hollow." The conservation area marks the eastern transition from the bottomland of the Chariton River into the hilly terrain typical of western Macon County.

Most of this area was purchased in 1941 by the late Basil Soupas who resided in South Gifford. He harvested most of the mature timber (some areas containing 5,000 board feet per acre) for barrel headings and farm use lumber. After harvest, he had 160 acres of the farm classified as Forest Crop Land. The remainder of the timber was incorporated into his pasture land, thus negating any timber management benefits received from the recent harvest. Sections of the timbered areas were aerial sprayed with marginal success. Lack of good pasture management resulted in some 200 acres of improved pasture reverting to hardwoods (mostly elm, hickory and honey locust). The local farm forester prepared a timber management plan for this tract in 1946, but unfortunately, it was never implemented. Periodic wildfires were common in the past. The area was inherited by Cleo and Esther Bloom after the deaths of Mr. and Mrs. Soupas. The majority of the acreage (1,228 acres) was obtained by the Department from the Bloom's in the winter of 1983-1984. Other smaller tracts have been added over the years.

Current Land and Water Types:

Land/Water Type	Acres	Miles	% of Area
Forest	1,129		83
Cropland	121		9
Woodland	65		5
Grassland	27		2
Old Field	16		1
Roads/Administrative	1		<1
Impounded Water	1		<1
Total	1,360		100
Stream Frontage		7	

References:

Missouri Department of Conservation. (2009). *Water and stream management guidelines for lands and waters managed by Missouri Department of Conservation*. Jefferson City, Missouri: Missouri Department of Conservation.

Missouri Department of Conservation. (2014). *Missouri Forest Management Guidelines Voluntary Recommendations for Well-Managed Forests*. Jefferson City, Missouri: Conservation Commission of the State of Missouri. Jefferson City, Missouri: Conservation Commission of the State of Missouri.

Missouri Department of Conservation. (2014). *Missouri watershed protection practice recommended practices for Missouri forests: 2014 management guidelines for maintaining forested watersheds to protect streams*. Jefferson City, Missouri: Conservation Commission of the State of Missouri.

Missouri Department of Conservation. (n.d.). *Missouri Department of Conservation atlas database*.

Missouri Department of Conservation. (n.d.). *Missouri Department of Conservation Natural Heritage database*. Accessed February 2013.

Personal interviews and correspondence with Department staff including: Matt Bergfield, Rich Blatz, Danny Hartwig, George Shurvington, Chad Smith, Cody Smith, & Brian Todd.

Maps:

Figure 1: Area Map

Figure 2: Land Cover Types

Figure 3: Forest Stand Prescription Map

Figure 1: Area Map

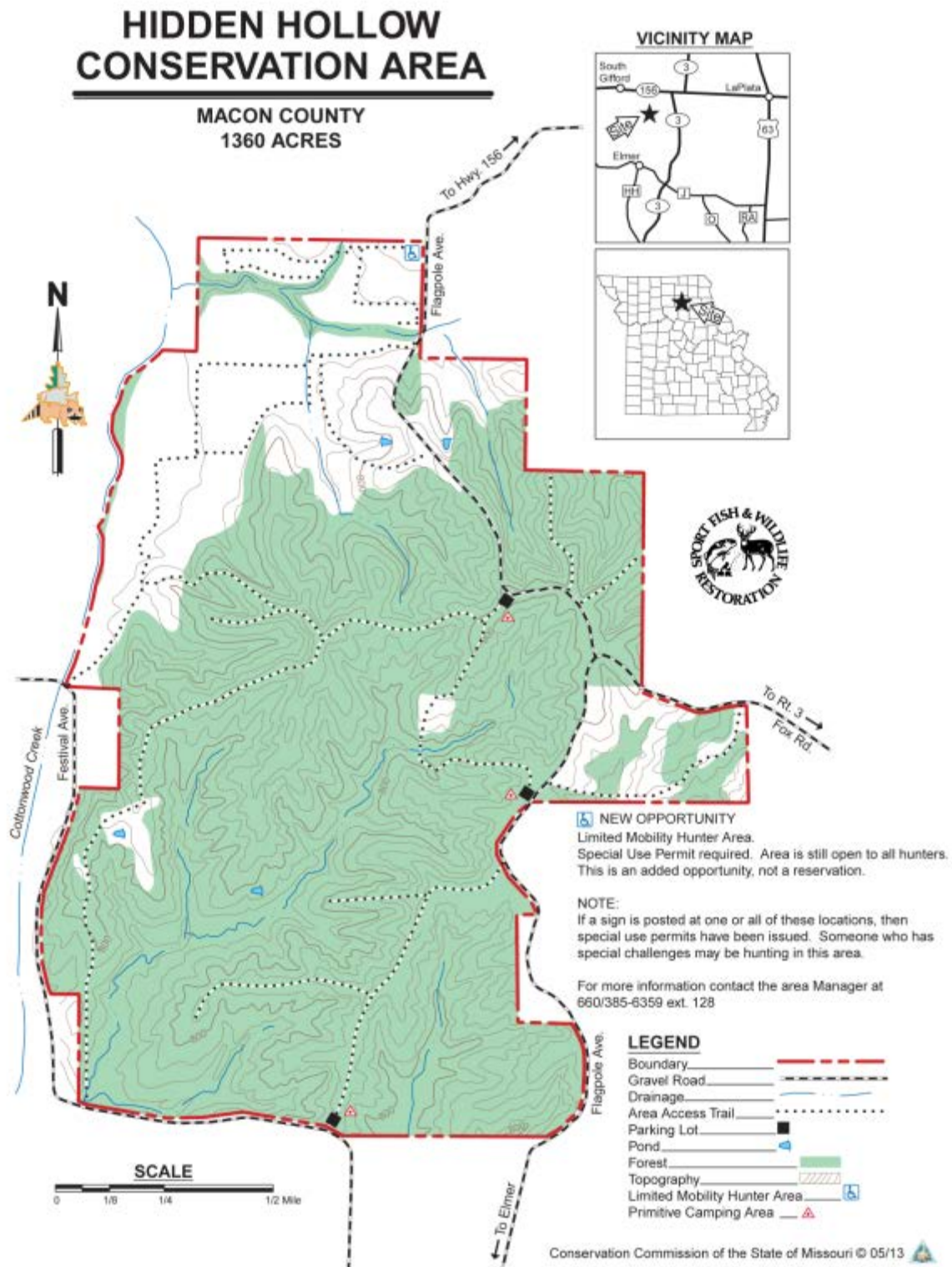


Figure 2: Land Cover Types

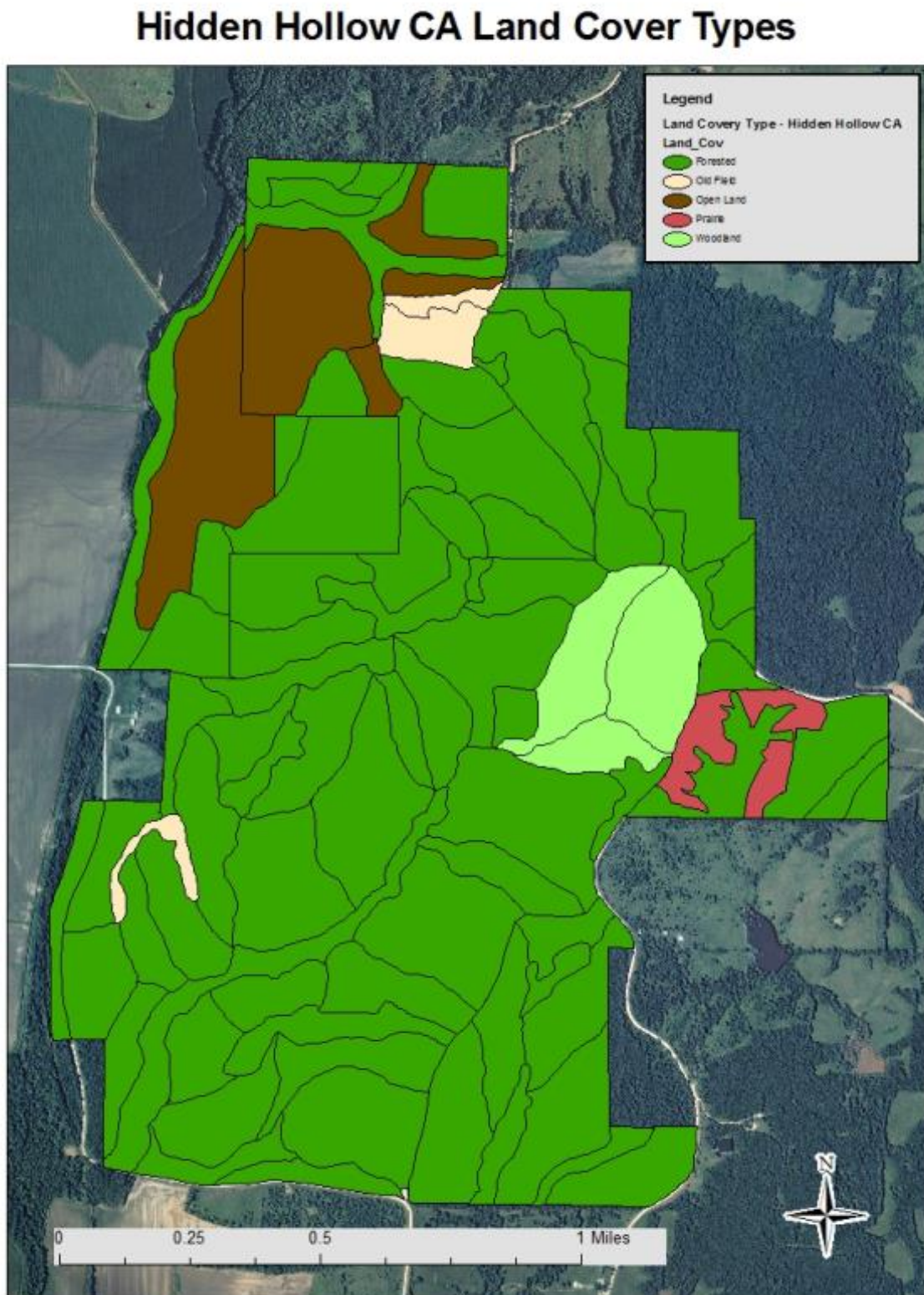
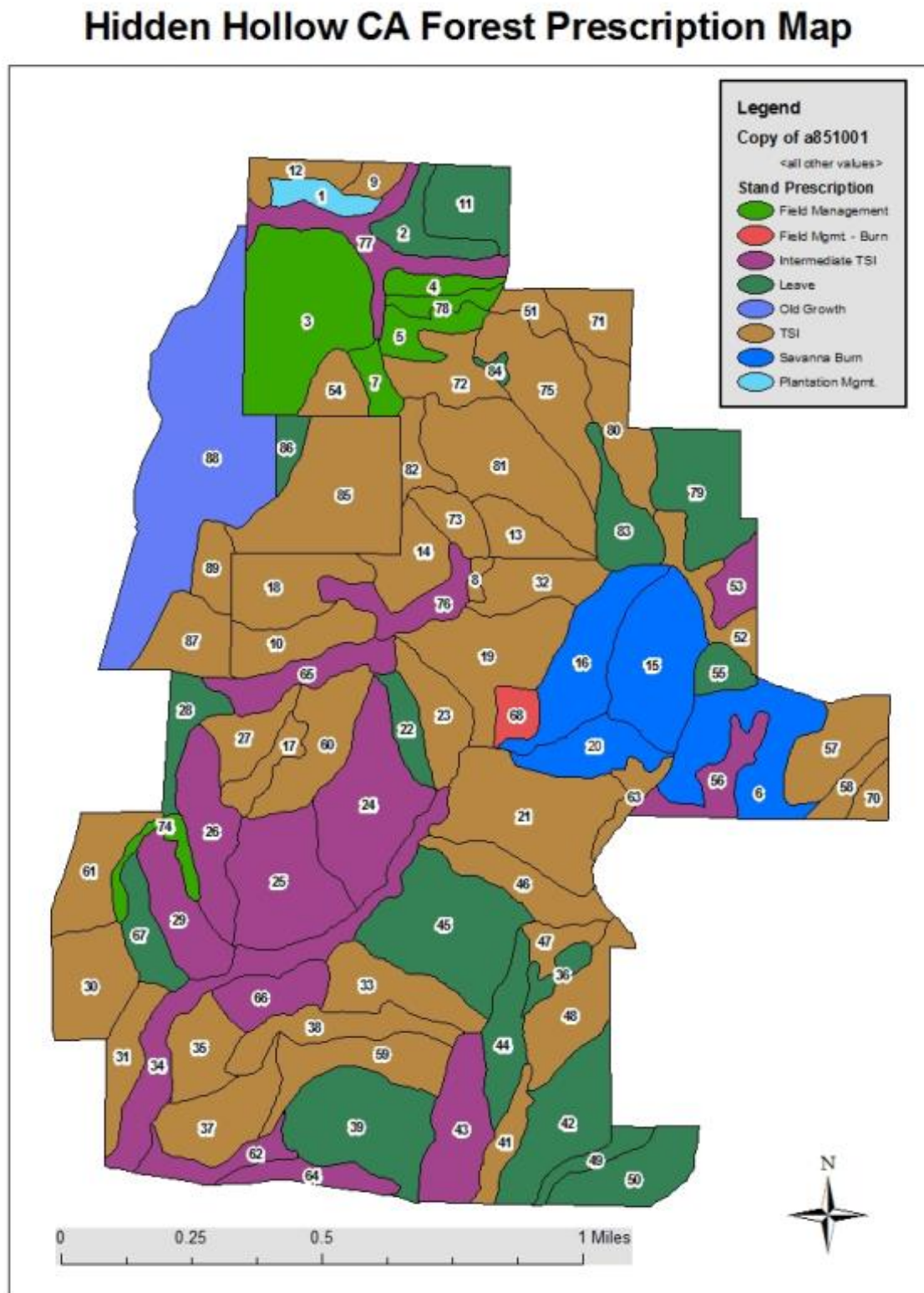


Figure 3: Forest Stand Prescription Map



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